

# *Marine Helicopter Recapitalization*

## *Discussion*

The Marine Corps has a long history of innovative solutions to warfighting requirements. In the past, when faced with the expense of replacing older aircraft such as the early versions of the AH-1, CH-46, and AV-8, the Marine Corps found affordable solutions through aircraft modernization programs. These programs were designed to correct existing aircraft deficiencies and enhance operational capability to provide the Marine Corps with a credible operational force. This is the same approach being taken to upgrade the fleet of utility and attack helicopters.



In 1995, the Secretary of the Navy approved the Marine Corps program to upgrade both utility and attack helicopters. This program, known as the H-1 upgrade, recapitalizes the entire fleet (acquisition objective of 100 UH-1N and 180 AH-1W). It builds on the existing aircraft capabilities, takes advantage of current upgrade efforts (COMNAV, Electronic Warfare and NTIS), and upgrades systems to provide the Marine Corps with an advanced fleet of utility and light attack helicopters. At the center of the upgrade is the installation of a

four-bladed rotor system, a newly developed drive train, and more powerful T700 engines. The addition of an integrated glass cockpit with modern avionics systems will provide a more lethal platform as well as enhanced joint interoperability through the digital architecture and the installation of DCS 2000 radios. In sum, this program incorporates all previously funded or planned modifications into one program, avoiding the cost of a “new start” replacement aircraft until a Joint Replacement Aircraft is fielded.

Operational enhancements include a dramatic increase in range, speed, payload, and lethality of both aircraft while significantly decreasing their logistic footprint. The utility variant will operate at nearly twice the current range with over double the payload. The attack variant will realize similar performance increases. It will also carry twice the current load of precision guided munitions with the addition of two wingtip ordnance stations. Both aircraft will achieve cruise speeds of over 150 knots. This program has coined a new word “identity”. Through use of the same major components, – drive train, cockpit and software –support for the fleet will be greatly simplified resulting in leaner logistic trains and more space available on already space-constrained amphibious and MPF ships. Moreover, these improvements will make the Marine Corps’ attack and utility helicopter capabilities more compatible with the performance demands of all future war-fighting concepts.

### *Marine Corps Position*

The H-1 upgrade program is an economical and comprehensive upgrade of both UH-1N and AH-1W helicopters that will resolve existing operational safety issues while significantly enhancing the capability and operational effectiveness of the attack and utility helicopter fleet. A key modernization effort, the H-1 upgrade will provide a bridge until the introduction of the Joint Replacement Aircraft in the 2020 timeframe.